



## Medical Materials MCC PH103 CAS 9004-34-6 In Pharmaceutical Preparation

Our Product Introduction

### Basic Information

- Place of Origin: China
- Brand Name: Hongbaiyi
- Certification: COA, HPLC MR
- Model Number: HBY-Microcrystalline Cellulose
- Minimum Order Quantity: 1kg
- Price: Negotiable
- Packaging Details: 20Kg/bag or 25kg/drum or according to your requirement
- Delivery Time: 3-5 work days after your payment
- Payment Terms: MoneyGram, Western Union, T/T
- Supply Ability: 4000kg/Month



### Product Specification

- Product Name: Medical Materials MCC PH103 CAS 9004-34-6 In Pharmaceutical Preparation
- Appearance: White Crystalline Powder
- MF: (C<sub>6</sub>H<sub>10</sub>O<sub>5</sub>)<sub>n</sub>
- MW: 324.28
- Grade: Pharmaceutical Excipients
- Chemical Name: Cellulose PH103
- Synonyms: Avicel PH 101; Celex PH101; Cellulose-gel PH101; Celphere PH101; Ceolus-KG PH101; Crystalline-cellulose PH101; E460 PH101; Emcocel PH101; Ethispheres PH101; Fibrocel PH101; Pharmacel PH101; Tabulose PH101; Vivapur PH101
- CAS Number: CAS 9004-34-6
- Applications: Adsorbent; Suspending Agent
- Source And Preparation: Microcrystalline Cellulose Can Be Obtained By Controlled Hydrolysis Of  $\alpha$ -cellulose With Dilute Mineral Acid Solution. And  $\alpha$ -cellulose



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## Product Description

### Medical Materials MCC PH103 CAS 9004-34-6 in Pharmaceutical Preparation



#### Basic Information Form of Medical Materials MCC PH103 CAS 9004-34-6

Product	Medical Materials MCC PH103 CAS 9004-34-6 in Pharmaceutical Preparation
Cas No.	CAS 9004-34-6
Purity	99.9%
Appearance	White powder
MF	(C <sub>6</sub> H <sub>10</sub> O <sub>5</sub> ) <sub>n</sub>
Molecular Weight	≈36000
Chemical Name	Cellulose PH101

#### What is Medical Materials MCC PH103 CAS 9004-34-6 in Pharmaceutical Preparation?

Microcrystalline Cellulose (MCC PH103) powdered cellulose products are used as high-grade plant fillers and standard binders for tablets. Powdered cellulose products (microcrystalline cellulose) binder excipients are a high-quality, high-grade, ultra-refined product range optimized for modern tablet production. They provide convincing results in all tablet compression processes, capsule filling as well as suspension and emulsion production.

Microcrystalline cellulose (C<sub>6</sub>H<sub>10</sub>O<sub>5</sub>)<sub>n</sub> is a refined wood pulp. It is a free-flowing white powder. Chemically, it is an inert substance that does not degrade during digestion and has no significant absorption capacity. Ingestion of large quantities increases dietary bulk and has a laxative effect.

Microcrystalline cellulose is a commonly used excipient in the pharmaceutical industry. It has excellent compressibility and can be used in solid dosage forms such as tablets. Hard but rapidly dissolving tablets can be made. Microcrystalline cellulose is the same as cellulose, but it meets U.S. Pharmacopeia standards.

It is also found in many processed foods and can be used as an anti-caking agent, stabilizer, texture modifier, or suspending agent. According to the GRAS Substance Selection Committee, microcrystalline cellulose is generally considered safe at normal dosages.

#### Uses of (Medical Materials MCC PH103 CAS 9004-34-6 in Pharmaceutical Preparation)

**Fillers:** Fillers are necessary in the production of tablets with very low drug doses. Microcrystalline cellulose can be used in all types of tablet manufacturing processes such as direct compression, wet granulation, and dry processing.

**Direct Compression:** MCC can be used as an excipient for direct compression tablets. It has high dilution capacity and high active ingredient carrier capacity. It maintains its integrity even during direct compression. Another reason for its popularity is its low bulk density and therefore high dilution and packaging density. It helps to produce harder tablets that are less prone to breakage. In addition, it provides excellent whiteness and stability.

**Wet Granulation:** As mentioned earlier, it is both insoluble and hydrophilic. Therefore, it is the preferred choice for this manufacturing process. The advantage of using MCC is that it retains moisture and helps in uniform granulation. Shell coagulation is a process used for inadequately dried granules. When pellets are dried at high temperatures, the inside of the pellet also remains wet and the surface appears to be dry. MCC is useful because it is less sensitive to wet mass and therefore does not over-wet, dries faster, less hardening is observed, and breaks down very quickly.

**Roll Compaction:** Roll compaction is a dry process that involves compacting the material into strips that are then processed to form pellets. The granules are then coated with grease and packaged in a tablet machine. The use of MCC in this process improves compaction, flow, and content uniformity.

**Binders:** Binders are very useful in order to obtain proper mechanical strength and giving volume to smaller doses of active ingredients. It affects the quality and appearance of the tablet. Considering the water absorption of MCC, it is widely used as a binder in the pharmaceutical industry.

**Disintegrants:** MCC is widely used as a disintegrant in dry tableting and wet granulation systems. It improves the disintegration of sedatives by accelerating the disintegration of tablets, provides maximum disintegration force at low dosage levels, and utilizes dual disintegration by water absorption and swelling to achieve faster disintegration.

Since its introduction, MCC has revolutionized pharmaceutical research, bringing assembly efficiency to a whole new level.

#### Packaging and Storage of Medical Materials MCC PH103 CAS 9004-34-6 in Pharmaceutical Preparation

**Packaging:** 1kg/bag, 25kg/paper drum, or as per your requirement.

**Storage:** Hermetically sealed, protected from light, in a dry place. Avoid direct sunlight.

#### Product Image of Medical Materials MCC PH103 CAS 9004-34-6 in Pharmaceutical Preparation



**MCC Similar types:**

Type	Median particle size( $\mu\text{m}$ )	Moisture(%)	Bulk density	Main application
PH-101	50	$\leq 5.0$	0.26-0.31	Typical type, rod-shaped elongated particle formation
PH-103	50	$\leq 3.0$	0.26-0.31	An improved type of 101 with lower moisture
PH-102	100	$\leq 5.0$	0.28-0.33	Larger particle size than 101, improved flowability
PH-113	50	$\leq 2.0$	0.26-0.31	An improved type of 101, for moisture-sensitive drugs
PH-301	50	$\leq 5.0$	0.35-0.50	Higher density than 101, improved fluidity and disintegration
PH-302	100	$\leq 5.0$	0.35-0.46	Higher density than 102, improved fluidity
PH-112	100	$\leq 1.5$	0.26-0.36	An improved type of 102 with ultra-low moisture
PH-102 SCG	150	$\leq 5.0$	0.26-0.36	An improved type of 102 with a larger particle size
PH-200	180	$\leq 5.0$	0.29-0.36	Larger particle size, with excellent flowability
PH-200 LM	180	$\leq 1.5$	0.30-0.38	An improved type of 200 with ultra-low moisture
PH-105	15	$\leq 5.0$	0.20-0.30	Very fine powder, better than 101, but less flowable
KG-802	50	$\leq 7.0$	0.13-0.23	High formability
KG-1000	50	$\leq 7.0$	0.10-0.15	Different aspect ratio and improved formability, compared
UF-702	100	$\leq 5.0$	0.22-0.35	Superfluidity combined with excellent formability



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